

## Take 3 – Practical Practice Pointers<sup>©</sup> September 23, 2019 Edition

### Vaping Warning, Aspirin for Primary CVD Prevention, Vaccine ?

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#### From the Literature and the CDC

##### 1) Dangers of Vaping and E-Cigarette Use

The CDC issued an “Interim Guidance Statement” on September 6<sup>th</sup> regarding a pattern of severe pulmonary disease and/or deaths associated with electronic-cigarette product use. This release corresponded with a NEJM article describing a pattern of pulmonary-related illness associated with the use of these products in 2 states.

As of August 27, 2019, 215 possible cases of severe pulmonary disease associated with the use of electronic cigarette (e-cigarette) products (e.g., devices, liquids, refill pods, and cartridges) had been reported to CDC by 25 state health departments. According to these reports, the onset of respiratory findings, which might include a nonproductive cough, pleuritic chest pain, or shortness of breath, appears to occur over several days to several weeks before hospitalization. Systemic findings might include tachycardia, fever, chills, or fatigue; reported gastrointestinal findings, which have preceded respiratory findings in some cases, have included nausea, vomiting, abdominal pain, and diarrhea. Most identified patients have been hospitalized with hypoxemia, which, in some cases, has progressed to acute or subacute respiratory failure. Patients have required respiratory support therapies ranging from supplemental oxygen to endotracheal intubation and mechanical ventilation. All patients have a reported history of e-cigarette product use, and no consistent evidence of an infectious etiology has been discovered. Therefore, the suspected cause is a chemical exposure. Most have reported a history of using e-cigarette products containing cannabinoids such as THC, some have reported the use of e-cigarette products containing only nicotine, and others have reported using both. No consistent e-cigarette product, substance, or additive has been identified in all cases, nor has any one product or substance been conclusively linked to pulmonary disease in patients.

In the case of the NEJM research, the study focused on 53 cases of the illness in Wisconsin and Illinois. Affected patients typically were healthy with a median age of 19 years and a majority have been men. A third of the patients were under the age of 18, according to the study. The researchers found that:

- 84% of the patients had vaped a product with tetrahydrocannabinol (THC), the high-inducing chemical in marijuana;
- 58% of the patients needed to be admitted to an intensive care unit; and
- 32% of the patients needed ventilator support

Health officials have said it is unclear whether the lung illnesses are associated with e-cigarettes or the contaminants or ingredients inhaled through the devices, but they noted that some patients with the condition have described using vaping "home brews," e-cigarettes containing THC, nicotine-based products, and other substances.

While this investigation is ongoing and the definitive cause of reported illnesses remains uncertain, **the CDC has recommended that persons should consider not using e-cigarette products.**

The CDC also emphasized that e-cigarette products should never be used by youths, young adults, pregnant women, or by adults who do not currently use tobacco products. Adult smokers who are attempting to quit should use evidence-based smoking cessation treatments, including counseling and FDA-approved medications; those who need help quitting tobacco products, including e-cigarettes, should contact their medical provider.

### **My Comment:**

Sigh ... As sad as this is, it should not be shocking to anyone. Here we have a commonly used, easily accessible, aggressively advertised/promoted, and highly addictive substance that continues to have very little regulation and may “customized” additives. I hope our negligence does not come back to haunt us. I fear it already is. Be sure to be asking your patients not only about their smoking history, but also their vaping history. Vaping is not considered “smoking” for most patients.

For those who have been using e-cigarettes to stop smoking, I consider this approach to be a very unstructured, unregulated medication assistance therapy (MAT) for nicotine addiction and a grand social experiment being driven by a new “disruptive technology.” It really should not surprise us that routinely breathing in the vapors of any burned chemical product is likely not healthy for us.

### **References:**

CDC MMWR: Severe Pulmonary Disease Associated with Electronic-Cigarette–Product Use — Interim Guidance. September 13, 2019 / 68(36);787–790. [Link](#)  
Layden J, et al. Pulmonary illness related to e-cigarette use in Illinois and Wisconsin—preliminary report. N Engl J Med September 6, 2019. [Article](#)

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## **From the Literature**

### **2) Use of Low-Dose Aspirin for Primary Prevention**

In 2016, the US Preventive Services Task Force (USPSTF) released their updated recommendations of the use of aspirin for primary heart disease prevention and colorectal cancer (CRC) prevention. Remember that **primary prevention** means preventing disease BEFORE it starts. The recommendation included the following:

Recommended initiating low-dose aspirin ( $\leq 100$  mg/day) use for the primary prevention of CVD and CRC in adults aged 50 to 59 (**B recommendation**) who have:

- a 10% or greater 10-year CVD risk (using the ACC/AHA risk calculator),
- are not at increased risk for bleeding,
- have a life expectancy of at least 10 years, and
- are willing to take low-dose aspirin daily for at least 10 years

Recommended that the decision to initiate low-dose aspirin use for the primary prevention of CVD and CRC in adults aged 60 to 69 who have a 10% or greater 10-year CVD risk should be an individual one. Persons who place a higher value on the potential benefits than the potential harms may choose to initiate low-dose aspirin (**C recommendation**). Those most likely to benefit are those who:

- are not at increased risk for bleeding,

- have a life expectancy of at least 10 years, and
- are willing to take low-dose aspirin daily for at least 10 years.

The current evidence was deemed insufficient for adults < 50 and ≥ 70.

As covered in the October 8, 2018 edition of Take 3, some newer published studies called into question the benefits of aspirin for preventing first CVD events/deaths, and confirmed sizeable harms. In light of this, recently published American Heart Association/American College of Cardiology prevention guidelines suggest that “aspirin should be used infrequently in the routine primary prevention” of CVD and limited to selected high-risk patients with low bleeding risk. The guidelines recommend:

- Low-dose aspirin (75-100 mg orally daily) might be considered for the primary prevention of ASCVD among select adults 40 to 70 years of age who are at higher ASCVD risk but not at increased bleeding risk (A)
- Low-dose aspirin (75-100 mg orally daily) should not be administered on a routine basis for the primary prevention of ASCVD among adults >70 years of age (B)
- Low-dose aspirin (75-100 mg orally daily) should not be administered for the primary prevention of ASCVD among adults of any age who are at increased risk of bleeding

A recently published “Viewpoint” in JAMA attempted to bring all these recommendations together and to offer some practical guidance and proposed how to use the process of shared decision making (SDM) and risk categories may help guide the decision as to when aspirin for primary CVD prevention may be most appropriate. The table below summarized this guidance:

Considerations for patients <b>not under current treatment</b> with low-dose aspirin		
<b>Consider initiation</b> <ul style="list-style-type: none"> <li>• High CVD risk (&gt;15%)</li> <li>• High colorectal cancer risk</li> <li>• Lower bleeding risk</li> </ul>	<b>Discuss benefits and harms</b> <ul style="list-style-type: none"> <li>• Intermediate CVD risk (7.5%-15%)</li> </ul>	<b>Avoid initiation</b> <ul style="list-style-type: none"> <li>• Low CVD risk (&lt;7.5%)</li> <li>• Higher bleeding risk</li> </ul>
Considerations for patients <b>under current treatment</b> with low-dose aspirin		
<b>Consider continuation</b> <ul style="list-style-type: none"> <li>• High CVD risk (&gt;10%)</li> <li>• High colorectal cancer risk</li> <li>• Longer duration of past aspirin use (&gt;10 y)</li> </ul>	<b>Discuss benefits and harms</b> <ul style="list-style-type: none"> <li>• Intermediate CVD risk (7.5%-10%)</li> </ul>	<b>Consider discontinuation</b> <ul style="list-style-type: none"> <li>• Low CVD risk (&lt;7.5%)</li> <li>• Shorter duration of past aspirin use (&lt;5 y)</li> <li>• Higher bleeding risk</li> </ul>

**My Comment:**

This has been a significant practice change over the past few years and my sense is that many patients are still being treated with aspirin based on previous guidelines. Be vigilant for this in your own practice, and don't hesitate to deprescribe by letting patients know of these new guidelines.

## References:

- Chiang, KF et al. A Practical Approach to Low-Dose Aspirin for Primary Prevention. JAMA. June 28 2019;322(4):301-302. doi:10.1001/jama.2019.8388. [Link](#)
  - Arnett DK, et al. 2019 ACC/AHA guideline on the primary prevention of CVD. *J Am Coll Cardiol*. 10 Sept 2019; 74(10): e177-e232. [Article](#)
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## Question from a Colleague

### 3) Availability of Recommended Adult Vaccinations

#### Question:

Why are certain vaccines (such as Shingrix) not stocked in our clinics, and why does it take our clinics longer to receive the flu vaccine than our local pharmacies?

#### Answer:

Variable insurance coverage and wide variation in insurance coverage has impacted why many ambulatory clinics (including those in Carilion Family Medicine) have chosen to not stock the zoster (Shingrix) vaccination. This becomes even more of a problem if a patient fails to sign an Advance Beneficiary Notice of Noncoverage (ABN) Form and then receives an unexpected bill. In many cases, present insurance reimbursement is less than the cost of the vaccination for our clinics. Commercial carriers variably cover shingles vaccine after age 60, but coverage between the ages of 50-60 is very sporadic.

Medicare part D covers flu and pneumovax/prevnar but requires members go to the pharmacy for other vaccines. Some health systems set up for billing as a pharmacy to be able to administer and bill other vaccinations. Carilion has not historically done this.

Availability of the flu vaccine depends on the manufacturer, and for certain companies there have been manufacturing delays this year. Additionally, within our system the vaccines are ordered and goes to our central warehouse for distribution out to the clinics. This adds several days to the process.

#### My Comment:

From a public health perspective, the additional options for access to vaccines (pharmacies) has been a good thing. However, it has also made it more challenging to track whether individuals have received recommended vaccinations, and many patients do not remember specifics. For companies, immunizations are big business, which explains the surge of television advertisements for Prevnar just as the CDC/ACIP recommendations are about to change for those  $\geq 65$ .

Feel free to forward Take 3 to your colleagues. Glad to add them to the distribution list.

*Mark*

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